

Appln No. 10/727,971
Amdt date January 29, 2004

Amendments to the Abstract:

Please amend the Abstract beginning on page 13 of the Specification as follows:

ABSTRACT:

An optical signal processor comprises a first input terminal for a pulse signal light ~~(10)~~ with a signal wavelength, a second input terminal for a probe light ~~(14)~~ with a probe wavelength different from the signal wavelength, a first splitter ~~(16)~~ to split the probe light ~~(14)~~ into two portions, an XPM optical device ~~(20)~~, to which one portion of the split output lights from the first splitter ~~(16)~~ and the pulse signal light ~~(10)~~ enter, to modulate the one portion of the split output lights from the splitter ~~(16)~~ according to amplitude variation of the pulse signal light ~~(10)~~, a second splitter ~~(24)~~ to split the light with the probe wavelength phase-modulated by the XPM optical device ~~(20)~~ into two portions, a first combiner ~~(28)~~ to combine the other portion of the split output lights from the first splitter ~~(16)~~ with the one portion of the split output lights from the second splitter ~~(24)~~ in in-phase relation during a period corresponding to a non-pulse period of the pulse signal light ~~(10)~~, and a second combiner ~~(32)~~ to combine the other portion of the split output lights from the second splitter ~~(24)~~ with the output light from the first combiner ~~(28)~~ in in-phase relation during a period corresponding to a pulse period of the pulse signal light ~~(10)~~.

Attachment: Replacement Abstract